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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,710	07/25/2003	Costanzo Lorenzotti	001US1	1892

21254 7590 08/04/2006

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EXAMINER

MATZEK, MATTHEW D

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,710

Applicant(s)

LORENZOTTI ET AL.

Examiner

Matthew D. Matzek

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-17, 21-25 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-17, 21-25 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. The amendment dated 5/24/2006 has been fully considered and entered into the Record. The amended claims contain no new matter. Claims 14-17, 21-25 and 27-29 are currently active. Applicant is correct in that 112 1st paragraph rejection was improperly applied in the Office Action dated 2/24/2006. That rejection has been withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14-17, 21-25 and 27-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claims 14 and 27 recite process for hydroentangling a plurality of waste threads, as further clarified by Applicant's most recent amendment. It is unclear to Examiner, if Applicant is intending to claim a hydroentangled nonwoven, which is a common article, and/or woven and hydroentangled article which calls for the weaving of a nonwoven or the post-treatment of a woven article with water jets. For purposes of examination, Examiner has interpreted the instantly claimed article to comprise a hydroentangled nonwoven fabric.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 14-17, 21-25 and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Warlick et al. (US 2003/0127342).

Warlick et al. teach a nonwoven fabric comprising hydrodynamically entangled short-staple or “waste cotton” fibers (Abstract). The term “waste cotton fibers” is intended to mean cotton fibers of less than $1\frac{1}{8}$ ” [0006]. The non-integrated batt of waste cotton fibers may vary between $\frac{1}{8}$ ” and 5” in thickness [0018]. Following hydroentangling the batt will be compressed from its non-integrated state. This results in a final product of the claimed thickness. The batts have a basis weight between 50g/m^2 and 200g/m^2 [0027]. This will not change following hydroentanglement. The invention of Warlick et al. is silent as to the weight per inch of fiber length, however as the invention of Warlick et al. is made with non-allegenic natural waste cotton fibers, which is the same as claimed by Applicant the fibers of Warlick et al. necessarily anticipates the limitation of claim 23. Claims 24 and 25 are rejected as the applied art teaches the use of cotton staple fibers and in Applicant’s specification it is taught to meet the instant limitations in [0041]. Claim 26 is rejected as the article of Warlick et al. calls for hydroentanglement (Abstract). This is same process (Applicant’s claim 14) used by Applicant to create the structure of claims 14 and 27.

4. Claims 14, 16, 17, 21-25, 27 and 29 are rejected under 35 U.S.C. 102(e) as being anticipate by Putnam et al. (US 2004/0248493).

Putnam et al. teach a nonwoven fabric comprising reconstituted or regenerated (waste) fibers (Abstract). These fibers may be cotton and have a finite length [0007]. The finite fiber lengths may range from 0.13-1 inches (3.3-25.4mm) or preferably 0.25-0.75 inches (6.35-19.1mm) and have a denier of 1.2 to 6.0 (3.4-17.1 micrograms per inch of fiber

length) [0019]. Claim 22 is rejected as natural cotton fibers are naturally non-allergenic [0041, Applicant's Specification]. Claims 24 and 25 are rejected as the applied art teaches the use of cotton staple fibers and in Applicant's specification it is taught to meet the instant limitations in [0041]. One of the preferred embodiments of Putnam et al. calls for hydroentanglement (Abstract). This is same process (Applicant's claim 14) used by Applicant to create the structure of claims 14 and 27.

5. Claims 14-17, 21-25, 27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Quantrille et al. (US Patent 5,431,991).

Quantrille et al. disclose a process of hydroentangling cotton staple fibers to form a web (col. 3, lines 30-37). Typically the web will have a basis weight ranging between 15 grams per square meter (gsm) to 200 gsm (col. 5, lines 16-20). The limitation that the natural fibers comprise waste fibers or a by-product does not provide for a patentably distinct article from that of the applied art as the manner in which the fibers are formed does not lead to a unique or novel end product. The length limitation provided in claim 15 is met as the length of cotton "staple fibers" is less than 1 inch (<25.4 mm) (Textile Glossary). Claim 22 is rejected as natural cotton fibers are naturally non-allergenic [0041, Applicant's Specification]. Claims 24 and 25 are rejected as the applied art teaches the use of cotton staple fibers and in Applicant's specification it is taught to meet the instant limitations in [0041]. The invention of Quantrille et al. is silent as to the weight per inch of fiber length, however as the invention of Quantrille et al. is made with non-allegenic natural cotton fibers, which is the same as claimed by Applicant the fibers of Quantrille et al. necessarily anticipates the limitation of claim 23. Claims 14 and 27

are rejected as one of the preferred embodiments of Quantrille et al. calls for hydroentanglement (col. 3, lines 32-40). This is same process (Applicant's claim 14) used by Applicant to create the structure of claims 14 and 27.

6. Claims 14-17, 21-25, 27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Cohen et al. (US Patent 5,736,473).

Cohen et al. disclose a fibrous composite structure with a basis weight of from about 6 to 400 gsm (col. 6, lines 5-10). The fibrous composite may contain hydroentangled cotton staple fibers (col. 9, lines 25-32). The limitation that the natural fibers comprise waste fibers or a by-product does not provide for a patentably distinct article from that of the applied art as the manner in which the fibers are formed does not lead to a unique or novel end product. The length limitation provided in claim 15 is met as the length of cotton "staple fibers" is less than 1 inch (<25.4 mm) (Textile Glossary). Claim 22 is rejected as natural cotton fibers are naturally non-allergenic [0041, Applicant's Specification]. Claims 24 and 25 are rejected as the applied art teaches the use of cotton staple fibers and in Applicant's specification it is taught to meet the instant limitations in [0041]. The invention of Cohen et al. is silent as to the weight per inch of fiber length, however as the invention of Cohen et al. is made with non-allegenic natural cotton fibers, which is the same as claimed by Applicant the fibers of Cohen et al. necessarily anticipates the limitation of claim 23. Claims 14 and 27 are rejected as Cohen et al. call for hydroentanglement of staple fibers (col. 9, lines 25-31). This is same process (Applicant's claim 14) used by Applicant to create the structure of claims 14 and 27.

Claim Rejections - 35 USC § 103

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quantrille et al. (US Patent 5,431,991) as applied to claim 14 above, and further in view of Meitner et al. (US Patent 4,426,417). The article of Quantrille et al. is silent as its thickness.

a. Meitner et al. teach a wiper comprising a matrix of nonwoven fibers having a basis weight in the range of 25 to 300 gsm, comprising cotton staple fibers (Abstract). The thicknesses of examples 1-3 are shown in Table 1. The thicknesses are in the range of 1 to 10 mm. The article of Meitner et al. is specifically designed for absorbent purposes (Abstract).

b. Since Quantrille et al. and Meitner et al. are from the same field of endeavor, (i.e. cotton staple fiber absorbent articles) the purpose disclosed by Meitner et al. would have been recognized in the pertinent art of Quantrille et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the cotton staple fiber absorbent article of Quantrille et al. with the motivation of the successful creation of an absorbent article.

8. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. (US Patent 5,736,473) as applied to claim 14 above, and further in view of Meitner et al. (US Patent 4,426,417). The article of Cohen et al. is silent as its thickness.

a. Meitner et al. teach a wiper comprising a matrix of nonwoven fibers having a basis weight in the range of 25 to 300 gsm, comprising cotton staple fibers (Abstract). The thicknesses of examples 1-3 are shown in Table 1. The thicknesses are in the range

of 1 to 10 mm. The article of Meitner et al. is specifically designed for absorbent purposes (Abstract).

b. Since Cohen et al. and Meitner et al. are from the same field of endeavor, (i.e. cotton staple fiber absorbent articles) the purpose disclosed by Meitner et al. would have been recognized in the pertinent art of Cohen et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the cotton staple fiber absorbent article of Cohen et al. with the motivation of the successful creation of an absorbent article.

9. Claims 15 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Putnam et al. (US 2004/0248493). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the article of Putnam et al. with a thickness of not less than 35 grams per square meter or a thickness in a range from 1mm to 10mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Arguments

10. Applicant's arguments filed 5/24/2006 have been fully considered but they are not persuasive.

11. Applicant argues that even though Warlick teaches the use of hydroentanglement to bind the fibers of the article together. As set forth in the two references supplied with this Office Action hydroentanglement calls for the horizontal laying of fibers and then hitting them with high pressure water jets perpendicularly. The jets cause the affected fibers to have an orientation

normal relative to the main plane of the article. This entanglement causes the fibers of the web to be bound to one another. Therefore, a hydroentangled web has fibers bound in a horizontal direction planar to a plane of the web and a transversal direction perpendicular to the plane of the web.

12. Applicant argues that the Warlick reference fails to anticipate the instant invention because it provides for a waterproofing material and a UV inhibitor for the production of bales covers and where the waste cotton fibers are disposed in surrounding relation to the material, while the instant invention may include only 100% pure cotton fibers [free] from binders or chemical substances bound in horizontally and co-planarly. All currently active claims set forth the open-ended language of “comprising” not “consisting”. Even new claim 29 only requires the plurality of waste threads to consist of pure cotton. This limitation does not preclude in the introduction of other materials as its parent claim 14 uses the open-ended term “comprising”. The transitional term “comprising”, which is synonymous with “including,” “containing,” or “characterized by,” is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., *Mars Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004). The transitional phrase “consisting of” excludes any element, step, or ingredient not specified in the claim. In re Gray, 53 F.2d 520, 11 USPQ 255 (CCPA 1931); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. App. 1948).

13. Applicant argues that even though Putnam teaches the use of hydroentanglement to bind the fibers of the article together. As set forth in the two references supplied with this Office Action hydroentanglement calls for the horizontal laying of fibers and then hitting them with high pressure water jets perpendicularly. The jets cause the affected fibers to have an orientation

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normal relative to the main plane of the article. This entanglement causes the fibers of the web to be bound to one another. Therefore, a hydroentangled web has fibers bound in a horizontal direction planar to a plane of the web and a transversal direction perpendicular to the plane of the web.

14. Applicant argues that Putnam requires the nonwoven fibers must include one type of reconstituted fibers. Therefore, this means that the web is not made from only pure cotton. Paragraph 19 of the applied reference provides for reconstituted natural fibers from cotton.

15. Applicant argues that since Putnam provides for fibers of length outside of the instantly claimed range it does not anticipate said range. Of the two instant claims that recite fiber length ranging from 8 to about 18mm both claims use the open-ended term “comprising”. Since, Putnam does provide for fibers within the instant range, the claim is necessarily anticipated. This is also true of Applicant’s micrograms per inch length limitation.

16. Applicant argues that even though Quantrille teaches the use of hydroentanglement to bind the fibers of the article together. As set forth in the two references supplied with this Office Action hydroentanglement calls for the horizontal laying of fibers and then hitting them with high pressure water jets perpendicularly. The jets cause the affected fibers to have an orientation normal relative to the main plane of the article. This entanglement causes the fibers of the web to be bound to one another. Therefore, a hydroentangled web has fibers bound in a horizontal direction planar to a plane of the web and a transversal direction perpendicular to the plane of the web.

17. Applicant argues that even though Cohen teaches the use of hydroentanglement to bind the fibers of the article together. As set forth in the two references supplied with this Office

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Action hydroentanglement calls for the horizontal laying of fibers and then hitting them with high pressure water jets perpendicularly. The jets cause the affected fibers to have an orientation normal relative to the main plane of the article. This entanglement causes the fibers of the web to be bound to one another. Therefore, a hydroentangled web has fibers bound in a horizontal direction planar to a plane of the web and a transversal direction perpendicular to the plane of the web.

18. Applicant argues that neither Quantrille, Cohen, Evans, nor Meitner, nor any combination thereof, teaches or suggests “fibers bound in a horizontal direction planar to a plane of the web and a transversal direction perpendicular to the plane of the web”. As set forth supra, the process of hydroentanglement provides for the instant fiber orientation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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